

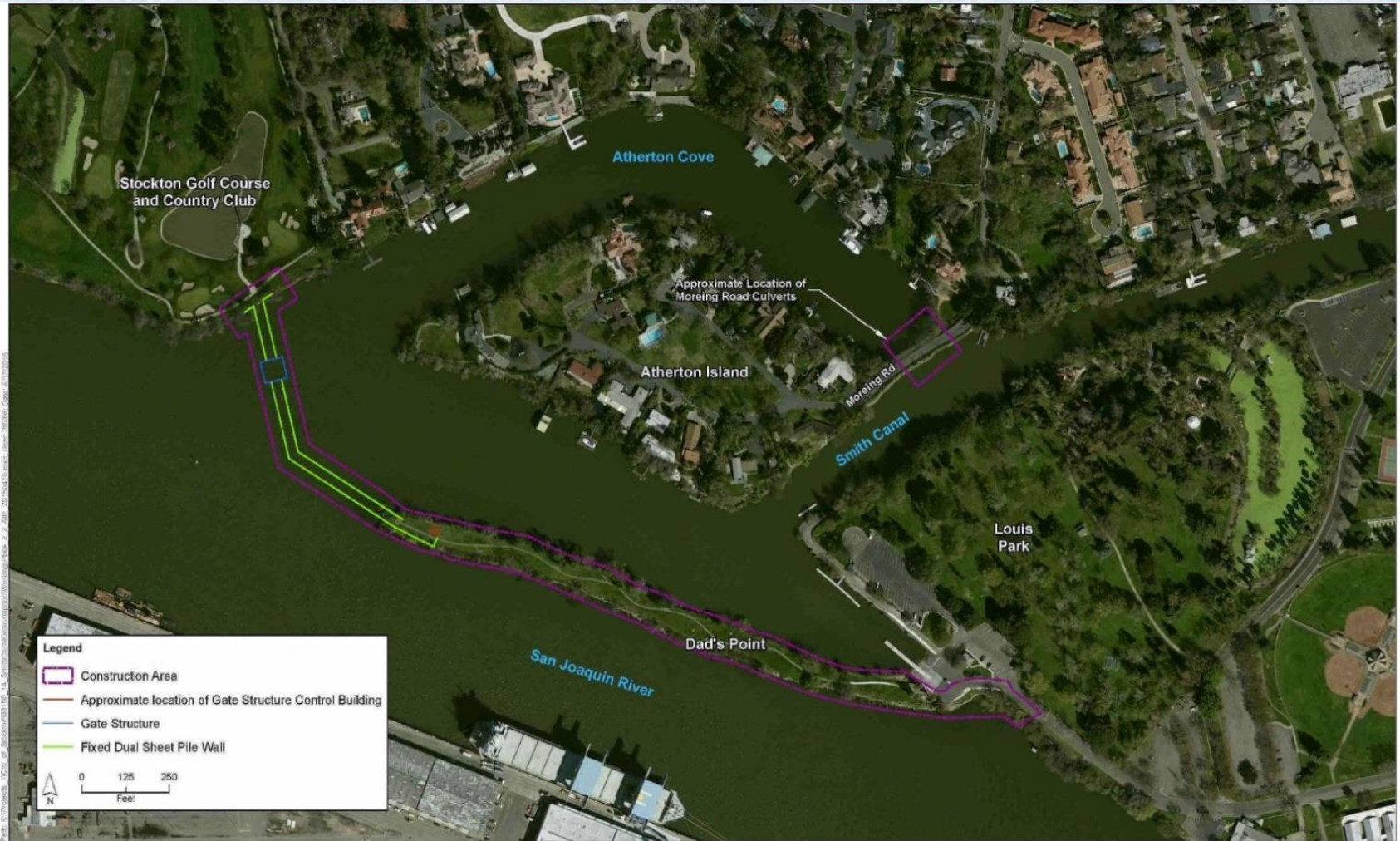
**Atherton Cove Property Owners Association  
Consistency Appeal  
Smith Canal Gate Project  
DSC Certification number C20188  
January 24, 2019**

# **Overview**

**Presentation will highlight three specific issues:**

- 1. Exacerbation of Water Hyacinth Growth**
- 2. Proliferation of Cyanobacteria**
- 3. Enhanced Predation Habitat from Increased Water Flows**

# The Proposed Project





## *Water Hyacinth*

- Would the project exacerbate the presence of water hyacinth within Atherton Cove?
- The EIR admits that it will:

# *Water Hyacinth*

- “[The] presence of the fixed wall would substantially decrease the width of the area where water hyacinth washes back out to the San Joaquin River and downstream, i.e., only through the 50-foot wide gate. Project-related increases in water velocities near the gate could help reduce water hyacinth cover in the center of the channel. However, without maintenance ***there could be significant accumulation of hyacinth behind the walls in areas that are currently open water, as the walls may reduce water velocity in spots and prevent hyacinth from washing back into the San Joaquin River.***
- (FEIR, pp. 3.7-21-22 (emphasis added).)

# *Water Hyacinth*

[EIR cont.]

“[W]ater hyacinth mats could accumulate adjacent to the gated fixed wall structure in the areas where there will be relatively little surface velocity. Without maintenance, ***the wall could enhance water hyacinth presence by preventing the hyacinth from drifting downstream into the San Joaquin River.*** . . . By conducting regular water hyacinth removal activities not currently conducted, implementation of Alternative 1 would have no impact on water quality as a result of water hyacinth growth . . .”

(SJA-CEQ-1015)

# *Water Hyacinth*

- Water hyacinth removal activities will be required indefinitely for Atherton Cove – whether called a “project element” or mitigation.
- The DEIR, when released in June 2015, describes the future program as follows. . .



# *Water Hyacinth*

“Water hyacinth (*Eichhornia crassipes*) also would be regularly removed from around the dual sheet pile wall through development and implementation of a water hyacinth control program to ensure that the cover of the water hyacinth in the project area does not increase beyond existing conditions. The frequency of water hyacinth removal would depend on the rate of vegetation growth and accumulation, to be determined by regular visual monitoring of the site. Based on the information gathered, SJAFCA would schedule and implement a regular removal program, removing hyacinth from the project site during the growing season, which is generally from March to early December. During the growing season, mechanical harvesting would be conducted using an aquatic weed harvester whenever cover of water hyacinth reaches 20% in the most impacted areas behind the sheet pile wall. The percent cover would be visually estimated from the shoreline behind the sheet pile wall.”

(SJA-CEQ-976–977.)



# *Water Hyacinth*

It has been more than 3 years, and SJFACA has still not yet prepared that plan. All we know about it is:

- The frequency of water hyacinth removal would depend on the rate of vegetation growth and accumulation, to be determined by regular visual monitoring of the site.
- Harvesting would occur generally from March to early December.
- Exclusively rely on mechanical harvesting that would commence “whenever cover of water hyacinth reaches 20% in the most impacted areas behind the sheet pile wall.”
- The percent cover would be visually estimated.

(SJA-CEQ-976–977.)

# *Water Hyacinth*

- This sparse description begs some obvious questions that SJFACA has never answered:
- How was the 20% trigger chosen? Was CDFW consulted?
- If harvesting is commenced at 20 % cover, when will harvesting be deemed complete?
  - When no plants are left in Atherton Cove?
  - 5% cover?
  - 10% cover?
  - 20% cover?

# *Water Hyacinth*

- There has been no attempt to comply with the detailed requirements of Delta Plan MM 4-1:

“The plan **shall be** based on the **best available science** and **developed in consultation with** Department of Fish and Wildlife (DFW) and local experts, such as the University of California Extension, county agricultural commissioners, representatives of County Weed Management Areas (WMA), California Invasive Plant Council, and California Department of Food and Agriculture. The invasive species management plan **will include the following elements**:

- Nonnative species eradication methods (if eradication is feasible)
- Nonnative species management methods
- Early detection methods
- **Notification requirements**
- Best management practices for preconstruction, construction, and **post construction periods**
- **Monitoring, remedial actions and reporting requirements**
- Provisions for **updating the target species list over the lifetime** of the project as new invasive species become potential threats to the integrity of the local ecosystems



# *Water Hyacinth*

- Implicitly acknowledging that its yet-to-be developed program in no way satisfies these requirements, SJAFCA takes the purely legal position that the Policy GP 1(b)(2) is inapplicable – no mitigation is required because the “project,” which assumes implementation of the “water hyacinth control program” will result in no impact. (Written Statement, p. 22.)

# *Water Hyacinth*

- This newly-minted legal argument fails for three reasons:

(1) This legal construct would create a huge exception that would allow virtually all future covered actions to avoid the substantive requirement to be “equally or more effective” by simply recharacterizing mitigation measures as project elements.

# *Water Hyacinth*

- (2) Contrary to SJFACA's legal construct, recent case law plainly states that "invasive plant removal" is "plainly mitigation measure[] and not part of the project itself." (*Lotus v. Department of Transportation* (2014) 223 Cal.App.4th at 657, fn. 8.)



# *Water Hyacinth*

(3) Here, however, SJFACA's legal construct still does not save its plan. SJAFCA's Statement asserts that ACPOA "incorrectly characterizes the Project, which includes a water hyacinth removal program." (p. 41)

- Not so. This plan does not yet exist after three years, and the few suggested details do not constitute substantial evidence that the Project would result in no impact to water hyacinth.
- Thus, even if we accept SJAFCA's legal position, its failure to adequately define this "component of the project" means that it is too speculative to conclude that it will in fact address all water hyacinth impacts as SJAFCA claims.

# *Water Hyacinth*

- A word on the CEQA case.
- SJFACA has made much of the decisions in the CEQA case concerning water hyacinth.
- Both the trial and appellate court analyses regarding water hyacinth are premised on the factual claim that “the hyacinth portion of the project at issue in this appeal is a ‘***continuation of the [DBW] program.***’” (Opinion, at p. 5; see also p. 8, fn. 4 (“project hyacinth control is merely a ‘continuation of the [DBW] program’”).)
- As a result, the court’s characterized the remediation program as a “baseline” condition not requiring CEQA review.

# *Water Hyacinth*

- In response to DSC staff's direct questioning on this point, however, SJFACA has now repudiated that claim in its Written Statement:

“SJFACA will implement its own water hyacinth control program. . . .” (p. 42)



# *Water Hyacinth*

Substantial evidence in the record does not establish that this yet-to-be-developed program was (or will be) developed with best available science, or that it is equally or more effective than Delta Plan MM 4-1.

# *Increased Water Flows*

- Policy ER P5 states that “improved habitat conditions for nonnative species, striped bass, or bass must be fully considered and avoided or mitigated . . .”
- Two different sets of experts, ICF International and BSK Associates, agree that increased flows resulting from the Project may increase predation.

## *Increased Water Flow Attracting Predators*

- The Council asked SJAFCA what specific evidence in the record demonstrates that SJAFCA considered the potential for flow increases to attract predators of special status fish species? (Notice of Public Hearing, p. 5.)
- To Summarize SJAFCA's answer: nothing in the record demonstrates it considered this issue. (Written Statement, pp. 23-25.)

## *Evidence in the Record Shows Increased Flows Impact Fish Predation*

- The ICF comments on hydrodynamic modeling made clear that “the concentration of flow through the gate opening is likely to attract predators” and pointed out that the Report failed to consider this impact. (SJA-CEQ-15849.)
- Also, the BSK Report noted that the fact that “[i]ncreased fish predation ... is commonly attributed to projects that change the channel margin” was never analyzed as a potential impact of the Project. (SJA-CEQ-02016.)



# *SJAFCA Failed to Answer the Council's Question*

SJAFCA's answer to this question dances around the issue of increased flows:

- SJAFCA acknowledges that the Project could result in flow increases, thereby conceding that the environmental conditions for enhanced predation would exist. (SJAFCA Statement, p. 23.)
- SJAFCA also acknowledges that protected species are present in the Project area. (SJAFCA Statement, p. 23.)
- SJAFCA then points to all the threats to these species evaluated in the EIR, including dewatering and invasive plant growth, but conspicuously not increased flows. (SJAFCA Statement, p. 23.)

# *SJAFCA Failed to Answer the Council's Question*

SJAFCA's further avoided directly responding to this issue:

- SJAFCA claims that the Smith Canal itself is not a good biome for fish, which is not relevant as the predation would occur in Atherton Cove, not in the Smith Canal. (SJAFCA Statement, p. 23.)
- Surprisingly, SJAFCA points out that under the Project changes analyzed in the CEQA Addendum, the Project would actually **worsen** the impact on predation by enhancing habitat for invasive fish species. (SJAFCA Statement, p. 24.)

## *Nothing in the Record Demonstrates SJAFCA Considered this Issue*

- Finally, after avoiding the issue entirely, pointing out all the ways, other than increased flows, the Project would impact predation of special status fish species, SJAFCA concedes that no evidence exists demonstrating that the concerns outlined in the ICF Comments were ever considered. (SJAFCA Statement, p. 25.)
- To SJAFCA, the mere passage of time is the only evidence demonstrating that they ever even considered this issue. It cannot point to any other evidence in the record.

## *Failure to Use BAS Resulted in Failure to Analyze Cyanobacteria Proliferation*

- SJAFCA is absolutely wrong to claim that “there is literally no evidence in the record that cyanobacteria is, or has ever been, in Atherton Cove.” (SJAFCA Statement, p. 38.)
- The BSK Report plainly states that “blooms of blue-green algae (cyanobacteria) have spread for miles throughout the Delta as a result of warmer temperatures and low flows.” (SJA-CEQ-02010.)
- BSK’s reference for that assertion, Berg and Sutula 2015, shows indeed has spread for miles throughout the delta, and further that cyanobacteria has been found about a mile away at the Port of Stockton’s Turning Basin. (Berg and Sutula, 2015, p. 36.)
- Thus, the record does indeed contain evidence that cyanobacteria is in the area of Atherton Cove. SJAFCA just never bothered to review the material made available to it over three years ago.



*Microcystis* has repeatedly occurred in the same areas in the San Joaquin and Old Rivers (Lehman *et al.* 2008, Mioni *et al.* 2012, Lehman *et al.* 2013). In 2012, abundant *Microcystis* colonies were also observed in the South-East Delta region in the Turning Basin of the Stockton Shipping Channel (Spier *et al.* 2013). Moving west from Antioch into Suisun Bay, *Microcystis* abundance decreases substantially to almost non-detectable by Chipps Island (Lehman *et al.* 2005, 2008, 2010). The same holds true when moving north where abundances detected at Antioch decline to almost zero by Collinsville at the entrance of the Sacramento River (Figure 4.1).

Whether or not the spatial distribution of *Microcystis* and other cyanoHAB species is affected favorably or unfavorably by concentrations of herbicides entering the Delta as run-off, or from the Sacramento and San Joaquin Rivers is not known. Recent reports suggest that a broad swath of herbicides and fungicides associated with agriculture is present at concentrations high enough to affect aquatic life (Orlando *et al.* 2014). As such, the impact of herbicides common to the Delta in selectively promoting certain phytoplankton species, including possibly cyanoHAB species, may deserve greater attention.

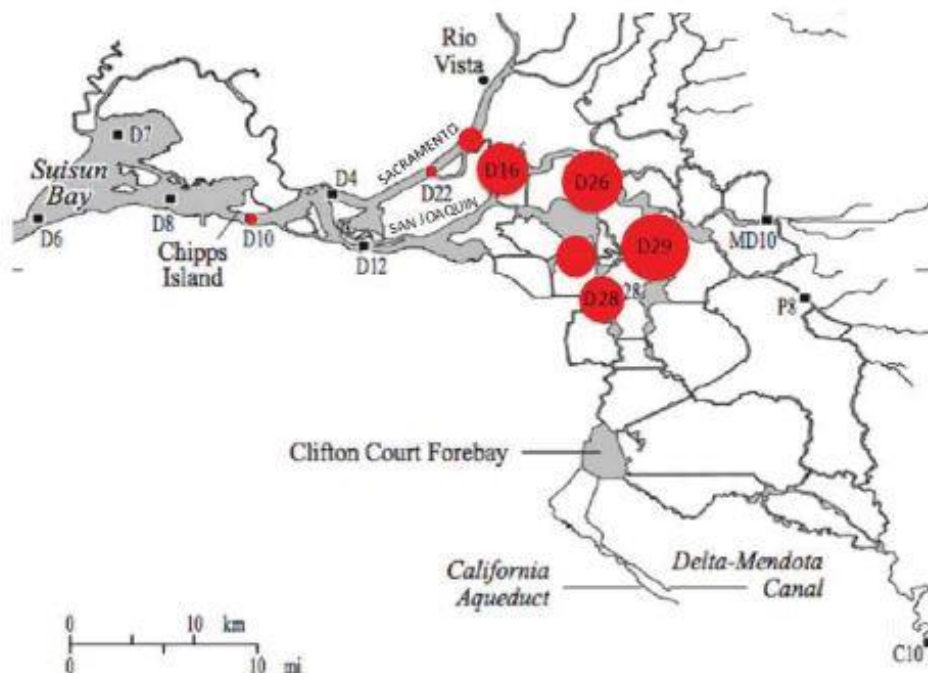


Figure 4.1. The Sacramento-San Joaquin Delta Region. Red bubbles mark locations with greatest *Microcystis*-associated surface Chl a concentrations (largest bubble=0.55  $\mu\text{g Chl a L}^{-1}$ ). Data from Lehman *et al.* 2005.



## Untitled Map

Write a description for your map.

### Legend

- Church
- Country Club
- Feature 1
- Island
- Port of Stockton
- Red Roof Inn Stockton
- Starbucks
- Stockton Golf Club Maintenance
- The Haggin Museum
- Victory Elementary School



Google Earth

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## *Failure to Use BAS Resulted in Failure to Analyze Cyanobacteria Proliferation*

- SJFCA claims that its experts looked for cyanobacteria, but could not find it. (Written Statement, pp. 38-39.)
- A careful review of the 4 pages cited by SJAFCA refutes this claim.
- Further, it is telling that none of those cited AR pages explain any methodology for their search for this microscopic organism.

## *Failure to Use BAS Resulted in Failure to Analyze Cyanobacteria Proliferation*

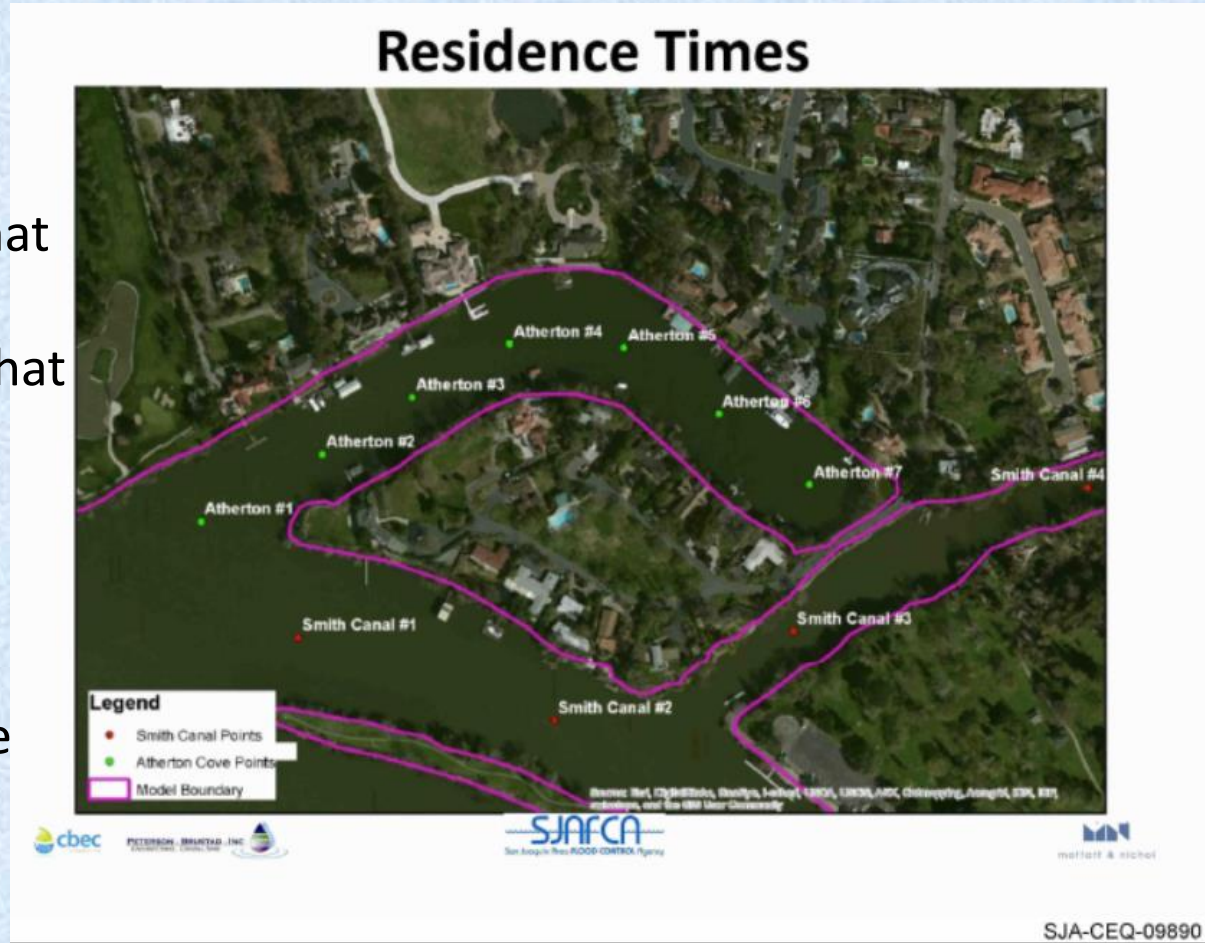
- SJAFCA alternatively argues that the Project does not improve habitat conditions for cyanobacteria, citing the Moffat & Nichol hydrodynamic study. (Statement, pp. 39)
- This backup claim is not supported by substantial evidence.
- BSK explains that cyanobacteria has spread as a result of warmer temperatures and lower flows. (SJA-CEQ-2010)
- The cited study acknowledges that water temperature is one of the variables not addressed. (SJA-CEQ-684)
- Even the issue the issue of flows is not addressed at a sufficiently fine scale.



# Failure to Use BAS Resulted in Failure to Analyze Cyanobacteria Proliferation

Only investigating the midchannel was not best available science because doing so ignored the fact that the Project would create “localized flow conditions that are likely to significantly exacerbate algal growth.” (SJA-CEQ-02012.)

The EIR acknowledges these localized reductions. (DEIR, p. 3.7-22 (“the walls may reduce velocity in spots”))



# Failure to Use BAS Resulted in Failure to Analyze Cyanobacteria Proliferation

“The projects impacts associated with, and related to, blue-green algae in general and cyanobacteria specifically, are ... fine-scale impacts, at a scale that would not be identified in [SJAFCAs] hydrodynamic analysis[.]” (SJA-CEQ-02012.)

SJAFCA's approach meant that "reduced circulation and longer retention times at the margins and at dead ends" was not ever considered.

